

OIL AND GAS CONSERVATION DIVISION



PHOTO BY GARY KLOTZ

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Prevent waste and provide for the conservation of crude oil and natural gas through regulation of exploration and production.

The quasi-judicial Board of Oil and Gas Conservation (BOGC) and its technical and administrative staff in the Oil and Gas Conservation Division are attached to the Department of Natural Resources and Conservation for administrative purposes. The board consists of seven members appointed to four-year terms by the governor. Members of BOGC during 2002 were:

David Ballard, Chair Billings Petroleum Geologist and Geophysicist	
Denzil Young, Vice Chair Baker Attorney	Allen Kolstad Ledger Farmer
Jerry Kennedy Shelby Oil Producer	Elaine Mitchell Cut Bank Accountant
Jack King Billings Landman	Gary Willis Helena Governmental Affairs Representative

The board's primary responsibilities are conservation of resources and prevention of waste through regulation of oil and gas exploration and production. In regulating these activities, the board relies heavily on its Oil and Gas Conservation Division staff. The division is headquartered in Billings, with field inspectors in Glendive, Plentywood, Roundup, and Shelby, and an administrative office in Helena. The board has a website at:

www.bogc.dnrc.state.mt.us

The board's regulatory actions have four primary goals:

- Prevention of waste of oil and gas reserves
- Conservation of oil and gas through encouragement of maximum efficient recovery of those resources
- Protection of the correlative rights of the mineral owners, i.e., the right of each owner to recover its fair share of the oil and gas underlying its lands
- Prevention of harm to nearby surface or underground resources from oil and gas operations

It accomplishes these goals by issuing orders and deficiency reports, adopting rules, establishing spacing units, classifying wells, issuing drilling permits, and administering bonds (required to guarantee the eventual proper plugging of wells and surface restoration). BOGC also plugs and restores the surface of orphaned, abandoned,

and problem wells, and it is empowered to levy both civil and criminal fines. It maintains a library of well cutting samples and core samples in Billings. Since 1993, the board has certified companies to receive tax incentives for horizontal wells and enhanced recovery projects.

The Oil and Gas Conservation Division is supported from three main sources:

- Privilege and license tax (0.26 percent of the market value of crude petroleum and natural gas produced, saved, and marketed or stored within the state or exported from the state [less government royalties])
- An annual injection well fee
- Federal grant funds for the Underground Injection Control (UIC) Program

The Underground Injection Control Program

BOGC has been administering the UIC Program in Montana since 1996, when primacy for the program was obtained from the U. S. Environmental Protection Agency (EPA).

The objective of the UIC Program is to protect underground sources of drinking water from contamination that could result from the improper disposal of liquid oil-field wastes. Operators apply for a UIC permit through the public notice and hearing process by notifying either the Billings or the Helena Oil and Gas Conservation Office.

BOGC's jurisdiction applies to all but Indian lands. Program costs are covered by an annual operating fee of \$200 per injection well and an EPA operating grant of approximately \$105,000 per year.

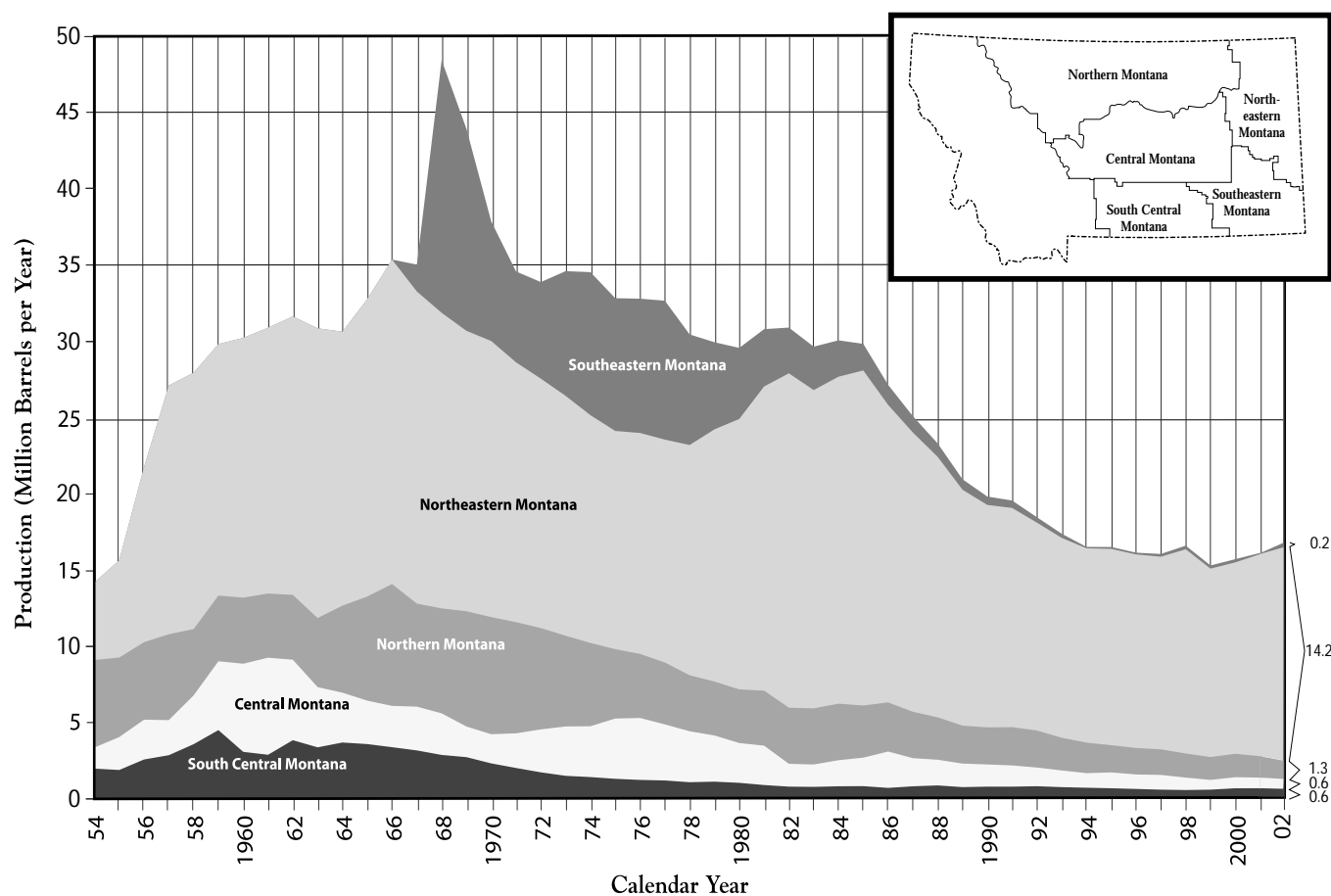
The UIC Program regulates 870 injection wells. In 2002, UIC field inspectors performed 527 inspections of these wells. Most of these inspections were routine, periodic inspections (260) and the witnessing of mechanical integrity tests (254).

In 2002, there were 57 injection well violations, of which 52 were failure to maintain mechanical integrity. This number of violations is lower than the 68 violations in 2001, and it represents a continuation of the downward trend in violations that began in 1999.

Activity Review

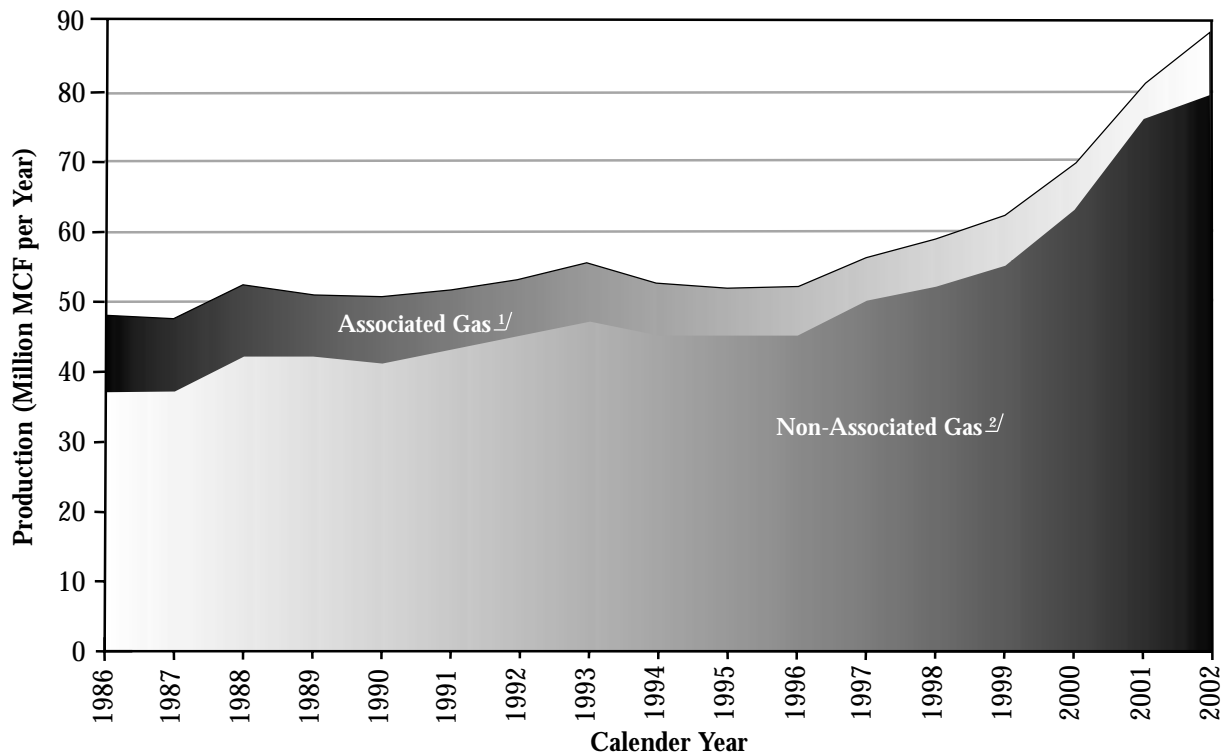
Montana's oil production increased by 4.0 percent, from 16.28 million barrels in 2001 to 16.94 million barrels in 2002. Crude oil production since 1954 is illustrated in Figure 14.

Figure 14
Crude Oil Production in Montana
1954-2002



Total gas production increased from 81.9 million MCF in 2001 to 86.8 million MCF in 2002, setting a new record high. Figure 15 on page 66 shows gas production from 1986 to 2002.

Figure 15
Natural Gas Production in Montana
1986-2002



1. Associated gas is gas that comes from an oil well.
2. Non-associated gas is gas that comes from a gas well.

Well drilling decreased from 531 wells completed in 2001 to 436 in 2002. Figure 16 shows the wells permitted by region, while Table 21 presents the well information by county. There were 290 gas wells, 8 coal bed methane wells, and 56 new oil wells completed during 2002. Table 22 details permits, completions, and oil and gas production history from 1998 through 2002.

Figure 16
Wells Permitted in 2002 by Region
(610 Wells Permitted)

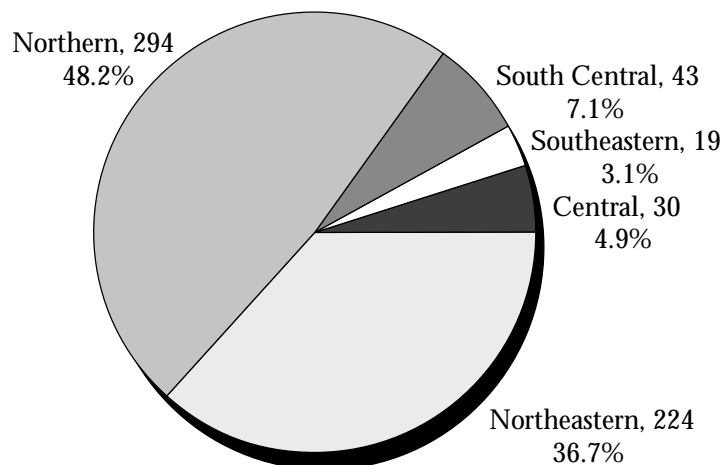


Table 21
Summary of 2002 Production and Drilling by County

County	PRODUCTION			WELL COMPLETIONS				
	Oil ¹ (Barrels)	Associated Gas (Thousand Cubic Feet, or MCF)	Gas (Thousand Cubic Feet, or MCF)	Oil	Gas	Coal Bed Methane	Dry	Other
Big Horn	69,907	0	9,679,910	0	8	8	6	0
Blaine	188,189	0	17,092,108	1	72	0	9	0
Carbon	530,911	488,229	1,127,794	0	1	0	1	0
Carter	0	0	0	0	1	0	1	0
Chouteau	0	0	2,293,319	0	14	0	5	0
Custer	0	0	216,172	0	2	0	0	0
Daniels	1,693	44	0	1	0	0	1	0
Dawson	366,704	119,640	0	6	0	0	1	2
Fallon	6,396,721	1,771,191	10,824,026	10	60	0	0	10
Fergus	0	0	27,209	0	0	0	3	0
Garfield	21,811	1,316	0	0	0	0	0	0
Glacier	533,693	95,176	1,820,311	4	7	0	0	0
Golden Valley	0	0	217,198	0	0	0	1	0
Hill	1,150	0	12,267,878	0	41	0	19	0
Judith Basin	0	0	0	0	0	0	1	0
Liberty	98,596	30,859	2,538,502	0	26	0	1	0
McCone	11,243	0	0	1	0	0	1	0
Musselshell	202,188	17,221	0	0	0	0	1	0
Petroleum	32,908	1,860	0	0	0	0	3	0
Phillips	0	0	14,334,666	0	33	0	0	0
Pondera	136,986	0	238,679	0	0	0	2	0
Powder River	157,118	18,706	97,964	0	2	0	1	0
Prairie	144,499	17,483	1,217	3	0	0	0	0
Richland	3,383,020	2,684,086	46	19	0	0	1	0
Roosevelt	1,520,804	838,578	495	3	0	0	0	0
Rosebud	357,931	27,018	0	2	6	0	0	1
Sheridan	1,615,325	969,686	27,770	2	2	0	1	0
Stillwater	2,999	0	204,527	0	0	0	2	0
Sweet Grass	0	0	91,690	0	1	0	2	0
Teton	54,584	0	48,457	0	0	0	0	0
Toole	292,681	113,183	4,275,877	1	11	0	5	0
Valley	180,655	46,904	1,299,738	3	3	0	0	0
Wibaux	625,957	155,770	650,639	0	0	0	0	0
Yellowstone	19,655	0	0	0	0	0	1	0
TOTAL	16,947,928	7,396,950	79,376,192	56	290	8	69	13

1. Total oil production shown on Table 21 is greater than the total shown on Table 22, because Table 21 includes condensate or other reported natural gas liquids.

Table 22
Five-Year Summary of Drilling and Production in Montana

	1998	1999	2000	2001	2002
Wells Permitted					
Oil	110	79	131	127	142
Gas	302	329	344	469	453
Coal Bed Methane	48	156	113	81	13
Service	2	3	14	16	2
TOTAL	462	567	602	693	610
Wells Completed					
Oil	71	26	60	96	56
Gas	144	235	287	290	290
Coal Bed Methane	21	111	77	48	8
Dry	66	63	57	82	69
Service	14	22	9	15	13
TOTAL	316	457	490	531	436
Oil Production (Barrels)¹					
Northern	1,590,425	1,508,885	1,550,958	1,425,844	1,301,841
Northeastern	13,382,441	12,370,134	12,558,590	13,371,181	14,244,931
Central	828,028	638,239	725,437	650,982	630,338
South Central	582,568	607,414	696,733	656,668	603,383
Southeastern	239,255	208,707	213,671	173,567	157,118
TOTAL	16,622,717	15,333,379	15,745,389	16,278,242	16,937,611
Number of Producing Oil Wells					
Northern	1,912	1,848	1,878	1,838	1,750
Northeastern	1,292	1,264	1,304	1,344	1,393
Central	236	225	229	220	215
South Central	118	119	126	131	130
Southeastern	83	72	77	62	57
TOTAL	3,641	3,528	3,614	3,595	3,545
Non-Associated Gas Production (MCF)					
Northern	46,684,669	47,307,373	52,397,561	57,156,766	56,209,559
Northeastern	4,736,768	6,672,889	7,236,987	8,290,978	11,504,169
Central	94,004	119,271	91,836	92,185	244,407
South Central	1,117,072	1,154,331	4,802,767	9,298,855	11,103,921
Southeastern	439,648	448,519	391,012	384,830	314,136
TOTAL	53,072,161	55,702,383	64,920,163	75,223,614	79,376,192
Number of Producing Gas Wells					
Northern	3,266	3,391	3,550	3,693	3,826
Northeastern	189	246	296	345	412
Central	7	9	8	8	7
South Central	47	141	204	280	292
Southeastern	8	8	8	8	7
TOTAL	3,517	3,795	4,066	4,334	4,544

1. Production figures do not include condensate or other natural gas liquids.

The 2002 activities reflect a continuing shift in interest to natural gas exploration and production, and a decreased interest in oil prospects. Conventional gas development projects predominated new well activities.

During 2002, twelve geophysical contractors received permits for 23 seismic projects. The Williston Basin in northeastern Montana and the Blaine and Hill County areas had most of these projects.

During 2002, approval was given for 72 new horizontal wells and 66 horizontal recompletions of existing vertical wells. BOGC approved one new secondary recovery project and one new tertiary recovery project. Forty-one horizontal recompletions were certified for tax purposes.

Drilling permit activity decreased, with 693 permits to drill issued in 2001 and 610 permits issued in 2002. BOGC's staff performed environmental assessments for each application involving private or state-owned land prior to permit issuance.

BOGC issued 213 orders during the year. Most of these orders authorized increased well density to accommodate in-fill drilling programs, established permanent spacing for horizontal wells and exception wells, delineated new fields, and allowed exceptions to existing field rules.

In 2002, BOGC spent \$476,998 plugging orphaned and abandoned wells using grants from DNRC's Reclamation and Development Grants Program, interest allocated to the board from the Resource Indemnity Tax (RIT) Trust, and proceeds from forfeited plugging and restoration bonds.

